

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently amended) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, wherein the reamer includes a hollow body of a generally dome shape ~~having a rotational axis, comprising an interior portion and a generally dome-shaped surface exterior,~~

the generally dome-shaped ~~surface exterior of the hollow body~~ comprising a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into the interior ~~portion of the reamer of the hollow body,~~ the generally dome-shaped ~~surface exterior of the hollow body~~ having a first portion and at least one second portion,

the first portion dimensioned substantially as a surface of rotation about ~~a~~ the rotational axis, and

the at least one second portion forming at least one side of the ~~hollow body generally dome-shaped surface,~~ not forming a surface of rotation about the rotational axis, being located generally more closely to the rotational axis than the first portion, and reducing a dimension of the ~~exterior of the hollow body generally dome-shaped surface~~ in at least one dimension transverse to the rotational axis ~~of the generally dome shape.~~

2. (Currently amended) The reamer of Claim 1, wherein the at least one second portion forms substantially a plane.

3. (Currently amended) The reamer of Claim 1, wherein the at least one second portion is oriented in a plane parallel to the rotational axis.

4. (Original) The reamer of Claim 2, including two second portions.

5. (Original) The reamer of Claim 4, wherein the two second portions are located in planes substantially parallel to one another.

6. (Original) The reamer of Claim 1, wherein the raised edges are confined to the first portion.

7. (Original) The reamer of Claim 4, wherein the raised edges are confined to the first portion.

8. (Original) The reamer of Claim 1, wherein the surgery is a hip replacement arthroplasty and the bone and the cartilage are the acetabulum of an animal or a human.

9. (Currently amended) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, wherein the reamer ~~is~~ includes a hollow body of a general dome shape ~~having a rotational axis~~, comprising an interior ~~portion~~ and a generally dome-shaped ~~surface exterior~~, the generally dome-shaped ~~surface exterior of the hollow body~~ having a first portion and at least one second portion,

wherein the first portion of the generally dome-shaped ~~surface exterior of the hollow body~~ comprises a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into the interior ~~portion of the reamer~~ of the hollow body,

wherein the raised edges are confined to an area of the first portion occupying substantially less than half of an area of the generally dome-shaped ~~exterior of the hollow body surface of the reamer~~, and

wherein the at least one second portion forms at least one side of the ~~hollow body generally dome-shaped surface of the reamer~~ hollow body and has no cutting edges.

10. (Currently amended) The reamer of Claim 9, wherein the raised edges are confined to a band straddling a middle portion of the ~~exterior of the hollow body dome-shaped surface of the reamer~~ exterior of the hollow body.

11. (Currently amended) The reamer of Claim 10, wherein the first portion is dimensioned substantially as a surface of rotation about the a rotational axis, and the at least one second portion is not forming a surface of rotation about the rotational axis and is located generally more closely to the rotational axis than the first portion, the second portion reducing a dimension of the exterior of the hollow body dome-shaped surface of the reamer in at least one dimension transverse to the rotational axis ~~of the generally dome shape.~~

12. (Original) The reamer of Claim 10, wherein the surgery is a hip replacement arthroplasty and the bone and the cartilage are in the acetabulum of an animal or a human.

13 – 24. (Cancelled)

25. (New) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, comprising a hollow dome,

the dome comprising, on an exterior of the dome, a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into an interior of the dome,

the dome having a portion dimensioned substantially as a surface of rotation about a rotational axis and at least one side not forming a surface of rotation about the rotational axis, located generally more closely to the rotational axis than the portion dimensioned substantially as a surface of rotation, and reducing a dimension of the exterior of the dome in at least one dimension transverse to the rotational axis,

26. (New) The reamer of Claim 25, wherein sides of the dome are substantially enclosed.

27. (New) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, comprising a generally dome-shaped hollow body,

the generally dome-shaped hollow body comprising, on an exterior of the dome, a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a

plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into an interior of the generally dome-shaped hollow body,

the generally dome-shaped hollow body having a portion dimensioned substantially as a surface of rotation about a rotational axis, and at least one side not forming a surface of rotation about the rotational axis and located generally more closely to the rotational axis than the portion dimensioned substantially as a surface of rotation,

the generally dome-shaped hollow body having a smaller exterior diameter in a direction of the at least one side not forming a surface of rotation as compared to an exterior diameter of the surface of rotation.

28. (New) The reamer of Claim 27, wherein sides of the generally dome-shaped hollow body are substantially enclosed,

29. (New) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, wherein the reamer comprises a hollow dome,

the dome having

an area comprising, on an exterior of the dome, a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into an interior of the dome, the area occupying substantially less than half of the exterior of the dome, and

at least one side that has no cutting edges,

30. (New) The reamer of Claim 29, wherein sides of the dome are substantially enclosed,

31. (New) The reamer of Claim 29, wherein the raised edges are confined to a band straddling a middle portion of the dome,

32. (New) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, wherein the reamer comprises a generally dome-shaped hollow body,

the generally dome-shaped hollow body having

an area comprising, on an exterior of the generally dome-shaped hollow body, a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into an interior of the generally dome-shaped hollow body, the area occupying substantially less than half of an exterior area of the generally dome-shaped hollow body, and

at least one side that has no cutting edges.

33. (New) The reamer of Claim 32, wherein sides of the generally dome-shaped hollow body are substantially enclosed.

34. (New) The reamer of Claim 32, wherein the raised edges are confined to a band straddling a middle portion of the generally dome-shaped hollow body.

35. (New) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, wherein the reamer includes a hollow body of a generally dome shape, comprising an interior and a generally dome-shaped exterior,

the generally dome-shaped exterior of the hollow body comprising a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into the interior of the hollow body, the generally dome-shaped exterior of the hollow body having a first portion and at least one second portion,

the first portion dimensioned substantially as a surface of rotation about a rotational axis,

the at least one second portion forming at least one side of the hollow body, not forming a surface of rotation about the rotational axis, being located generally more closely to the rotational axis than the first portion, and reducing a dimension of the exterior of the hollow body in at least one dimension transverse to the rotational axis,

wherein sides of the hollow body are substantially enclosed.

36. (New) A reamer for reaming a bone or a cartilage, or a combination thereof, during surgery, wherein the reamer includes a hollow body of a general dome shape, comprising an interior and a generally dome-shaped exterior, the generally dome-shaped exterior of the hollow body having a first portion and at least one second portion,

wherein the first portion of the generally dome-shaped exterior of the hollow body comprises a plurality of raised edges for cutting the bone or the cartilage or the combination thereof, and a plurality of openings for passing of fragments of the bone or the cartilage or the combination thereof into the interior of the hollow body,

wherein the raised edges are confined to an area of the first portion occupying substantially less than half of an area of the generally dome-shaped exterior of the hollow body, and

wherein the at least one second portion forms at least one side of the hollow body and has no cutting edges, and

wherein sides of the hollow body are substantially enclosed.